

Allergic Diseases of Pets: Food Allergies

In the last two parts of this series, we talked mostly about airborne allergies and the diseases they cause in pets' skin and ears. Today we will look at the other major cause of allergies: food. In the new age of gluten-hating and peanut allergies, people have become more aware of the fact that major reactions can happen anywhere in the body when we ingest food to which we are allergic. If you've seen anyone with a shellfish allergy eat a crustacean, you know that reactions can range as severe as anaphylaxis and throat swelling down to red-itchy skin. While our pets seem to have been spared from most of the life-threatening reactions, we see a ton of the skin and intestinal reactions. Like people, the intestinal reactions tend to result in diarrhea, followed by occasional vomiting and weight loss. However, skin reactions seem to be far more common.

When an animal eats something to which they are allergic, the body will "overreact" to its presence in the intestinal tract by causing release of chemical signals (cytokines) from the tissue of the intestinal walls. One of the results of this signal release is to cause the tissue of the intestines to become inflamed and swollen. This affects normal function of the digestion and leads to diarrhea. If the inflammation is bad enough, it can affect the movement of food through the intestines causing vomiting. However, when those signals get into the bloodstream and travel throughout the body, they can also trigger this same inflammation in the skin. For some reason, this seems to be more common in dogs and cats than in people. Regardless of the reason, the result is the same: itchy skin and ears. Just like in allergies to airborne particles, the scratching and head shaking can become chronic enough to lead to damage of the skin. The loss of this healthy barrier will lead to skin and ear infections.

Like people with nut, shellfish, and gluten allergies, pets' allergies are to specific animal and plant tissue. While it is only more recently that the world is accepting that allergies may be passed down the generations from commonly eaten foods, the shorter generations in dogs and cats have made this hereditary pattern more obvious in the veterinary profession. As of 2011, the most common allergies in dogs and cats, in order of prevalence, were as follows: beef, dairy, wheat, chicken, egg, lamb, soy, corn, pork, fish and rice. As you can see, these are all the most commonly used ingredients in most dog and cat foods. Like people with food allergies, avoidance of these ingredients is the most effective way to prevent allergic reactions. However, this can be harder than we think for pets.

Despite regulation regarding quality control and labeling in animal food, many regulations fall into the category of "Choose to follow" versus "Must follow". Even the "Must follow" requirements aren't really enforced well. As a result, many pet foods labeled as "hypoallergenic" are anything but. In the last 18 months, some very well-known (and very expensive) "all-natural" pet food companies have come under scrutiny after settling lawsuits regarding mis-labeled foods and quality control. In particular, food labeled as not containing a certain ingredient (i.e. "Chicken-free") did, in fact contain those ingredients. While some over-the-counter foods are hypoallergenic as-labeled, be sure to check with your veterinarian about the company. Preferably, choose a prescription ingredient-free diet with known quality control.

In addition to diets without the common allergens, there are diets that go a step further and break down the ingredients at the molecular level (hydrolyzed diets). While pets can be started

on these diets at any time, they can be expensive, so they are usually reserved for intestinal cases that have failed to respond to regular diets and treatment. In the case of skin reactions, we can also use the same therapies (oral allergy medication or monoclonal antibody injections) as those for airborne allergies to combat the itchiness caused by the food allergies.

If your pet has itchy skin year-round, or chronic intermittent intestinal signs (diarrhea or vomiting), you may be dealing with a food allergy. Be sure to discuss this with your veterinarian to see if some of these new treatments may help.